

RECLAMATION

Managing Water in the West

Finding of No Significant Impact

2014 Tehama-Colusa Canal Authority Water Transfers

FONSI 14-11-MP

Recommended by:



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Date:

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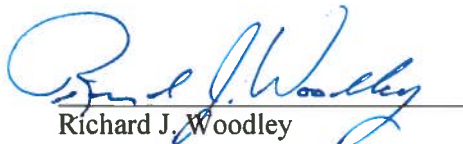


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Background

The U.S. Department of Interior, Bureau of Reclamation (Reclamation) and the Tehama-Colusa Canal Authority (TCCA) prepared a joint Environmental Assessment/Initial Study (EA/IS) on the proposed action for approving water transfers to areas within the Tehama-Colusa Canal Authority experiencing water shortages in 2014. Reclamation is the Federal lead agency for the EA pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended, and TCCA is the State lead agency for the IS pursuant to the California Environmental Quality Act (CEQA). This FONSI summarizes the analysis from the Reclamation and TCCA EA/IS dated April 2014. The EA/IS is attached and incorporated by reference.

To help facilitate the transfer of water to TCCA users experiencing water shortages, Reclamation is considering whether it can approve and facilitate individual water transfers between willing sellers and buyers. Reclamation has approval authority over water transfers that involve Central Valley Project Water and Base Supply water, or the use of CVP facilities. Reclamation would approve each transfer on an individual basis, but this document refers to them collectively as the 2014 Tehama- Colusa Canal Authority Water Transfers. Water transfers would occur from willing sellers within the Sacramento Valley to buyers that divert water from the Tehama-Colusa Canal. The transfer water would be conveyed, using CVP facilities, to water users experiencing water shortages in 2014 and require supplemental water supplies to meet anticipated demands. Reclamation would review and approve, as appropriate, proposed water transfers in accordance with the Draft Technical Information for Preparing Water Transfer Proposals in 2014 (Reclamation and DWR, October 2013), state law and/or the Interim Guidelines for Implementation of the Water Transfer Provisions of the Central Valley Project Improvement Act (CVPIA) (Reclamation 1993).

Alternatives Including Proposed Action

No Action Alternative

Under the No Action Alternative, Reclamation would not approve the proposed transfer of Base Supply and/or Project Water from willing Sacramento River Settlement Contract (SRS Contract) sellers to users that farm within the area served by the Tehama-Colusa Canal Authority in 2014. However, other transfers that do not involve the CVP or CVP contractors may occur under the No Action Alternative.

Additionally, Base Supply and/or Project Water transfers within basins would continue to occur and would still require Reclamation's approval. Some CVP contractors that are not included in this EA/IS may decide they are interested in selling water to buyers at a later time, however additional NEPA analysis would be required before those transfers could proceed.

Under the No Action Alternative, agricultural and urban water users will face shortages in the absence of water transfers. CVP and State Water Project (SWP) water service contractors' initial allocations are 0 percent, and Settlement Contractors and refugees have been notified that the portion of the Contract Total to be made available this year is 75 percent, though this number may be adjusted further. These users may take alternative water supply actions in response to shortages, including increased groundwater pumping,

cropland idling, reduction of landscape irrigation, or water rationing. Water users may also seek to transfer water from others, which may require additional NEPA or CEQA analysis. In the absence of water transfers, growers may not have enough water to meet demands, and some permanent crops could be lost.

Proposed Action

The Proposed Action includes groundwater substitution transfers and cropland idling/shifting transfers in 2014 that require Reclamation approval. The Proposed Action includes potential transfers of Base Supply and/or Project Water from eighteen entities with Sacramento River Settlement Contracts.

Administratively, Reclamation would evaluate each proposal individually, as it is received, to determine if it meets state law and CVPIA requirements. Reclamation has followed this process in past years when approving transfers (such as the Drought Water Bank in 2009 and water transfers in 2013). Reclamation would reoperate CVP facilities to deliver transferred water to TCCA Member Units; DWR may also reoperate SWP facilities to help facilitate delivery of transfer water.

The Proposed Action would make water available to buyers from willing sellers during 2014. Reclamation would limit the total amount of water approved for transfer under this action to a maximum of 155,000 acre-feet. Tables 2-2 and 2-3 in the EA/IS (Pages 2-5 and 2-5) provide details of potential transfer types that could be made available by the eighteen seller water agencies. Existing CVP facilities could be used to convey transfer water to entities that require supplemental water supplies to meet anticipated demands. These transfers also include transfers between “common landowners” that own land in multiple water districts that may want to move water between different parcels to preserve permanent crops. Other transfers not involving the TCCA and its participating members could occur during the same time period. The San Luis and Delta-Mendota Water Authority (SLDMWA) released a separate EA/IS to analyze transfers from a very similar list of sellers to the SLDMWA Member Units. These two documents reflect different potential buyers for the same water sources; that is, the sellers have only the amounts of water listed in Table 2-1 in the EA/IS (page 2-2) available for transfer, but the water could be purchased by TCCA or SLDMWA members.

Comments on the EA

Comment letters were received from AquAlliance and California Department of Fish and Wildlife (DFW). Each of these letters presented comments regarding analysis in the EA/IS. DFW’s letter expressed concurrence with the Biological Resources findings and provided some recommendations for further coordination and clarification of the Environmental Commitments. AquAlliance’s letter expressed concern with water transfers in general and particularly groundwater substitution transfers and stated certain opinions regarding the use of water in northern California. Reclamation considered every comment in approving these transfers; below is a discussion of the substantive issues raised regarding the analysis and how it was considered in Reclamation’s decision. Reclamation’s decision is the approval or disapproval of the proposed transfer of Base Supply or Project Water and is independent of the lead agency’s decision under CEQA. All issues raised in the comment letters have been specifically addressed in Appendix B of the EA/IS.

Scope of the Action

AquAlliance suggests that Reclamation is required to prepare an EIS/EIR to allow groundwater substitution transfers to occur on a yearly basis. Their comment letter also suggests that Reclamation understands this because we have begun preparation of a long-term EIS. NEPA requires federal agencies to prepare a detailed Environmental Impact Statement (EIS) on all major Federal actions significantly affecting the quality of the human environment. The EA/IS provides a thorough and systematic evaluation of a broad range of environmental issues and demonstrates that no potentially significant environmental impact may occur as a result of the Proposed Action, as mitigated. Preparation of an EIS/EIR therefore is not warranted or required. In addition, the Proposed Action is not seen as a precedent setting action continuing on into the future, but rather provides for only temporary transfers during 2014 to meet the short-term needs of water suppliers that are facing water shortages.

Groundwater Analysis

AquAlliance raised several questions and concerns related to the groundwater resources analysis and emphasizes that the long-term monitoring shows water levels in Glenn-Colusa Irrigation District (GCID) declining.

Water Code §1745.10 provides that groundwater substitution transfers may not occur unless (a) they are consistent with a legally-adopted groundwater management plan; or (b) if no groundwater management plan has been adopted, the water supplier proposing a transfer has determined that the transfer will not cause or contribute to long-term overdraft of the basin. Reclamation requires that proposed transfers meet these requirements. Reclamation has analyzed historic well data and determined that while groundwater elevations have fluctuated seasonally each year, groundwater elevations have remained relatively stable in basins from which transfers have occurred. The groundwater monitoring data from 2013 water transfers and the well hydrographs included in Appendix F. This information includes several years of groundwater level data from the basins that are involved in these proposed transfers are evidence of these fluctuations and general recovery. In addition to Reclamation's requirements, districts that are required to comply with local groundwater management plans or ordinances have demonstrated their compliance to the satisfaction of the groundwater management entity.

Reclamation also requires each entity proposing to transfer water to comply with a monitoring program to determine: (1) the extent of surface water-groundwater interaction in the areas where the groundwater is pumped for the transfer, (2) the direct effects of transfer pumping on the groundwater basin, and (3) the magnitude and potential significance of any effects on other legal users of water. Reclamation also reviews information and data for each well that is proposed as a source of substitute water to ensure that there would be no significant impacts to fish and wildlife. Wells that are anticipated to have significant impacts to the environment are not approved for use as a source of substitute water for transfers. If, in the unlikely event a well is approved and later is shown to have impacts, transfer entities are required to

mitigate impacts to other legal users of water, or the local environment and economy. Impacts that must be mitigated would include any contribution to long-term overdraft conditions, a reduction in water levels in non-participating wells, a change in the hydrologic regime of streams such that the ecological health of the stream is impaired, land subsidence, and degradation of groundwater quality. These requirements ensure any potential impacts are adequately addressed. As indicated by the graphs included in Appendix F of the EA/IS representing groundwater conditions in several basins underlying the proposed transfer areas, these conditions have been effective in the past for ensuring that no significant impacts occur, and that groundwater levels rebound to former levels.

Fish and Wildlife

Reclamation appreciates DFW's review of the EA/IS and, particularly, DFW's review and assistance in the development of the Environmental Commitments related to potential giant garter snake (GGS) effects. DFW requested clarification on the rationale for not modeling surface water changes. Surface water modeling was not completed for the EA/IS because the maximum quantity of water transfers relative to total reservoir storage and river flows would be minor and the Proposed Action would not result in significant impacts to fish. Reclamation completed formal Section 7 consultation with the USFWS and received a Biological Opinion from the USFWS prior to approving this FONSI or any water transfers involving cropland idling.

Reclamation and TCCA will continue to collaborate and consult with DFW and USFWS on implementation of water transfers, particularly on transfers in areas of suitable habitat for GGS. As included in the Environmental Commitments, Reclamation will coordinate with USFWS and GGS experts to identify priority suitable habitat for GGS and discourage idling in those priority areas. Reclamation will also coordinate with DFW, as appropriate, in the provision of information regarding water transfer proposals, monitoring, and review of the monitoring data collected.

Findings

In accordance with NEPA, the Mid-Pacific Regional Office of Reclamation has found that the approval of proposed water transfers in 2014 is not a major federal action that would significantly affect the quality of the human environment. Consequently, an Environmental Impact Statement is not required. This determination is supported by the following factors:

- 1. Water Resources:** Under the Proposed Action, Reclamation would operate CVP reservoirs to convey transferred water to the buyers. This reoperation would change reservoir storage and river flows. Sacramento River flows may be reduced by a small amount in April, May, and June downstream of TCCA and Feather River flows could increase. The flow changes would occur from Shasta Dam downstream to the point where the water would have been diverted without transfers. The potential change in flow would be about 685 cfs if supplies increase to allow the maximum transfers included in this document, but flow changes would be about 320 cfs if the supplies do not increase. These estimates show the average change during June (the month with the greatest potential change in river

flow), but instantaneous peak flows may be slightly higher. During dry conditions in 1977, flows in the Sacramento River near Colusa averaged 6,560 cfs in May and 6,244 cfs in June (USGS 2014).

Reclamation would not store all the water in Shasta and would deliver transfer water to TCCA on a similar irrigation pattern than without the transfer. Therefore, the changes in river flows would be less than stated above and would likely be a fairly small percent of the overall river flows. Keeping water in storage in Shasta Reservoir could help conserve the cold water pool in a year where reservoir levels are so low; however, the very small change from the transfers would be a minor benefit. Changes in flows would not violate any existing water quality standards or worsen any water quality and flow standard violation. Water transfers would be conveyed through existing facilities.

Water made available for transfer via groundwater substitution could affect groundwater hydrology. The potential effects could be short-term declines in local groundwater levels, interaction with surface water, and land subsidence. The potential for subsidence as a result of the Proposed Action is small if the groundwater substitution pumping is small compared to overall pumping in a region. The minimization measures described below require all groundwater substitution transfers to monitor for subsidence or provide a credible analysis why it would be unlikely. The process of real-time subsidence monitoring will measure any changes in the ground surface elevation, whether subsidence is short-term or long-term.

Under the Proposed Action, additional water supply would benefit water users who receive the transferred water. The Proposed Action would not adversely affect surface water resources.

2. **Groundwater Resources:** Groundwater substitution transfers could affect groundwater hydrology. The potential effects would be decline in groundwater levels, interaction with surface water, land subsidence, and water quality impacts.

Well reviews, monitoring, and mitigation plans will be implemented under the Proposed Action to minimize potential effects to groundwater resources. All plans will be coordinated and implemented in conjunction with local ordinances, basin management objectives, and all other applicable regulations. Required information is detailed in the Draft Technical Information for Preparing Water Transfer Proposals (DWR and Reclamation 2013) for groundwater substitution transfers.

The reviews and plans will be required from sellers for review by Reclamation during the transfer approval process. Reclamation will not approve transfers without adequate mitigation and monitoring plans. Therefore, the Proposed Action will not have a significant adverse impact on groundwater resources.

3. **Air Quality:** The proposed Project would result in the potential for significant environmental impacts associated with air quality. Mitigation measures have been incorporated into the Proposed Action to reduce impacts to less than significant levels. The five mitigation measures for the Proposed Action listed below have been adopted by Reclamation and TCCA. The Proposed Action will not result in significant impacts to air quality.

- All diesel-fueled engines would either be replaced with an engine that would meet the applicable emission standards for model year 2013 or would be retrofit to meet the same emission standards.
 - Natural gas engines will be retrofit with a selective catalytic reduction device (or equivalent) that is capable of achieving a NOx control efficiency of at least 90 percent.
 - Any engines operating in the area of analysis that are capable of operating as either electric or natural gas engines would only operate with electricity during any groundwater transfers.
 - Selling agency would reduce pumping at diesel or natural gas wells to reduce emissions to below the thresholds.
 - Operation of the engines at Pleasant Grove-Verona Mutual Water Company will be limited to 6.5 hours per day per engine or 202 cumulative hours for all engines.
4. **Geology and Soils:** Increased cropland idling in the Sacramento Valley to make water available for transfer is not likely to substantially increase wind erosion of sediments. In the buyer area, water is likely to be used on permanent crops (such as orchards and vineyards). The soils underlying these fields have a low risk of wind erosion; therefore, continued cultivation is not likely to substantially increase erosion.

Groundwater substitution transfers could reduce groundwater levels, which could decrease water pressure and result in a loss of structural support for clay and silt beds. The analysis finds that the potential for land subsidence from increased groundwater pumping (under the No Action Alternative and the Proposed Action) would be small.

5. Biological Resources:

FISHERY RESOURCES

Water transfers would slightly decrease river flows during the transfer period from the TCCA diversion at Red Bluff to downstream of the point of diversion for the sellers under the No Action Alternative. Reclamation is consulting frequently with USFWS and NMFS on CVP and SWP operations relative to the BOs and special status fish species. Special status fish species would not be affected by the Proposed Action beyond those impacts considered by the BOs and current consultations with NMFS and USFWS.

SPECIAL STATUS SPECIES

The following is a discussion of effects of rice idling actions on special status wildlife species that are present in the sellers' area. Environmental Commitments have been incorporated into the Proposed Action to reduce potential impacts to special status wildlife species. The Environmental Commitments are listed in Section 2.4. Additional special status animal and plant species have the potential to occur in the project area, but would not be affected by the Proposed Action. The EA/IS

appendices H and I list special status animal and plant species that could be present in the project area and the reason for no effect.

Rice idling could affect special status species that use rice fields for forage, cover, nesting, breeding, or resting. Under the Proposed Action, a maximum of 49,294 acres of rice could be idled in Colusa, Glenn, Sutter and Yolo counties.

Rice idling actions could affect the GGS that use flooded rice fields for foraging and protective cover habitat during the summer months. GGS require water during their active phase, extending from spring until fall. During the winter months, GGS are dormant and occupy burrows in upland areas. While the preferred habitat of GGS is natural wetland areas with slow moving water, GGS use rice fields and their associated water supply and tail water canals as habitat, particularly where natural wetland habitats are not available. Because of the historic loss of natural wetlands, rice fields and their associated canals and drainage ditches have become important habitat for GGS.

Rice idling would affect available habitat for GGS. The GGS displaced from idled rice fields would need to find other areas to live and may face increased predation risk, competition, and reduced food supplies. This may lead to increased mortality, reduced reproductive success, and reduced condition prior to the start of the overwintering period. Rice idling transfers would be subject to the Environmental Commitments described in the EA/IS, which include measures to protect GGS.

As included in the Environmental Commitments, Reclamation will coordinate with USFWS and GGS experts to identify priority suitable habitat for GGS and discourage idling in those priority areas. Implementation of Environmental Commitments will also protect movement corridors for GGS by maintaining water in irrigation ditches and canals. Some GGS would successfully relocate to find alternate forage, cover, and breeding areas.

Rice idling under the Proposed Action would have a less than significant impact on GGS because the Environmental Commitments would avoid or reduce many of the potential impacts associated with displacement of GGS. Some individual snakes would be exposed to displacement and the associated increased risk of predation, reduced food availability, increased competition, and potentially reduced fecundity. The number of individual snakes affected is expected to be small because Environmental Commitments avoid areas known to be priority habitat for GGS or where GGS populations are known to occur. The Environmental Commitment to maintain water in canals near idled fields would also protect GGS.

RIPARIAN/WETLAND HABITAT and SENSITIVE AREAS

The changes in river flows would likely be a fairly small percent of the overall river flows. The Proposed Action would result in minor effects to any riparian habitat near the rivers. Environmental Commitments limiting the amount of rice acres idled in historic tule marsh habitat and maintaining water in ditches would support flows to existing wetlands. The incremental effect to wetlands under the Proposed Action would be less than significant.

Several adopted Habitat Conservation Plans (HCP) and Natural Community Conservation Plans (NCCP) exist within the project area, including the Natomas Basin HCP, South Sacramento HCP, and the Yuba-Sutter NCCP/HCP. Water transfers under the Proposed Action would have a less than significant impact on the natural communities that are covered in these plans because of the temporary nature of the transfers and the minimal changes in flows and reservoir levels associated with water transfers. The Environmental Commitments under the Proposed Action would minimize impacts to special status species that are covered in the plans. The Environmental Commitments also require sellers to address third-party impacts from groundwater substitution specifically in areas where groundwater subbasins include conservation banks or preserves for GGS. The Proposed Action would not conflict with HCP and NCCP provisions.

6. **Cultural Resources:** The Proposed Action would allow for water transfers via groundwater substitution and/ or cropland idling/shifting in the Sacramento Valley and are conveyed to the TCCA through existing facilities. No new construction, ground disturbing activities, or changes in land use would occur. Since the Proposed Action has no potential to affect historic properties, no cultural resources would be impacted as a result of the Proposed Action.
7. **Indian Trust Assets:** The Proposed Action does not include areas where Indian Trust Assets have been identified; therefore, there is no potential to affect Indian Trust Assets.
8. **Indian Sacred Sites:** The Proposed Action does not include Federal land; therefore, there is no potential for Indian Sacred Sites to be affected by the Proposed Action.
9. **Environmental Justice:** Under the Proposed Action, cropland idling transfers could disproportionately and adversely affect minority and low-income farm workers by reducing agricultural production. A maximum of 44,487 acres of rice could be idled under the Proposed Action. Based on the maximum idling acreage under the Proposed Action, approximately 148 farm workers jobs would be lost in Glenn, Colusa, Sutter, and Yolo counties (1.1 percent of total 2012 farm employment). This magnitude of job losses is within historic annual fluctuations in farm worker employment. Annual changes in farm worker employment from 2002 to 2012 were 2 percent or greater in 5 years (EDD 2012). All farm worker effects would be temporary and only occur during the 2014 crop season. Cropland idling under the Proposed Action would not result in an adverse and disproportionately high effect to farm employment.

Water transfers under the Proposed Action would provide water to agricultural users in the buyers' area. Increased water supply would be used to irrigate permanent crops that face water shortages under the No Action Alternative. This would provide employment for the labor intensive, permanent crops, which would provide farm employment for low income and minority workers. This would be a beneficial effect to environmental justice populations.

10. **Socioeconomics:** Based on the estimated direct effects and employment multipliers, the total economic effect to employment of the proposed rice idling actions would be a loss of 424 jobs in Colusa, Glenn, Sutter, and Yolo counties. These job losses would be less than 1 percent of the total employment in both regions. At the regional level, this effect would not be substantial. Further, the

Proposed Action would last for one year and growers could put the land back into agricultural production in the subsequent year if water supplies increase. Therefore, economic effects from cropland idling would be a temporary effect.

Effects may be more adverse in local communities. Rural communities have a much smaller economic base, and any changes to economic levels would be more adverse relative to a large regional economy. Reclamation and participating buyers and sellers will limit cropland idling as a result of the Proposed Action to less than 20 percent of the acreage of a particular crop in a district to reduce the potential for economic effects. Water Code Section 1745.05(b) requires a public hearing under some circumstances in which the amount of water from land idling exceeds 20 percent of the water that would have been applied or stored by the water supplier absent the water transfer in any given hydrologic year. Third parties would be able to attend the hearing and could argue to limit the transfer based on its economic effects.

In the buyer area, water transfers under the Proposed Action would provide water for irrigation that would help maintain crop production. Even with transfers, growers would continue to face water shortages and take actions to address reduced water supplies. Transfer water would be used to irrigate permanent crops to keep them alive through the dry year and support long-term production. Permanent crops are typically more labor intensive and have higher value than field crops. Continued irrigation of permanent crops through the 2014 irrigation season would support farm labor and provide revenue to the region through 2014 and in the long-term. Transfer water would help local farm economies in the TCCA area of the Sacramento Valley by providing employment and wages to farm laborers. Transfers would protect growers' investments in permanent crops and farm income. Transfers would provide long-term economic benefits by keeping permanent crops alive through the 2014 dry conditions. If permanent crops do not survive through 2014, there would be substantial long-term adverse economic effects to the buyer area by reducing employment and income in subsequent years. The Proposed Action would benefit the regional economy in the buyer area.

- 11. Cumulative Impacts:** The cumulative impacts analysis considers other potential water transfers that could occur in the 2014 transfer season, including non-CVP water transfers and other existing water transfer and groundwater programs, including the Lower Yuba River Accord. Given the short-term nature of the Proposed Action, Environmental Commitments and minimization measures, impacts to the previously discussed resource categories associated with the Proposed Action will not contribute to a cumulatively significant adverse impact when added to other past, present, and reasonably foreseeable future actions. The Proposed Action would not adversely affect the human environment and therefore would not contribute to any long-term effects on environmental resources. The Proposed Action will not result in cumulative impacts to any of the resources previously described.